initiation group. The non-ATRP polymerization process may be any one of a cationic, anionic, free radical, controlled free radical, metathesis, ring opening and coordination polymerization process. An example is a halogenated peroxide derivative for conventional free radical polymerization and ATRP.

E1 Embodiments of the present invention comprise macroinitiators which initiate polymerization processes to produce block copolymers. The block copolymers may comprise monomer units polymerizable by different polymerization processes, including but not limited to, cationic, anionic, free radical, controlled free radical, metathesis, ring opening and coordination polymerization processes."

In the Claims

Cancel claims 70, 71 and 74.

119. (Amended) A macroinitiator for polymerization processes, comprising:

E2 a free radical polymerization initiator group comprises at least one of an azo group and a peroxy group;

at least two polymer blocks each comprising alkyl methacrylate monomeric units attached to the convention free radical polymerization initiator group.

Add new claim 125, as follows:

125 (New) The multifunctional polymerization initiator compound of claim 117, wherein the radically transferable atoms or groups comprise:

E3 Cl, Br, I, OR^{10}, SR^{14}, SeR^{14}, $OP(=O)R^{14}$, $OP(=O)(OR^{14})_2$, $OP(=O)OR^{14}$, $O\text{-}N(R^{14})_2$ and $S\text{-}C(=S)N(R^{14})_2$, where R^{10} is alkyl of from 1 to 20 carbon atoms in which each of the hydrogen atoms may be independently replaced by halide, R^{14} is aryl or a straight or branched $C_1\text{-}C_{20}$ alkyl group, and where an $N(R^{14})_2$ group is present, the two R^{14} groups may be joined to form a 5- or 6-membered heterocyclic ring; and